BRUHATH BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE ELECTRICAL DIVISION

Name of the work :- Detaild Estimate for Repairs and Improvements of Electrical installations in BEL 2nd Block,Narsipura lake park and 8th main Vidyaranyapura lake park.

Estimate No. 28/24-25 **Budget Head:**

Est Cost Rs. **3000000.00**

Sl. No	SR Page No	Description	Unit	Qty	Rate	Amount
1	11/4.9.5 CSR 2023-24	Fabricating, supplying and erection of ... ms long hot dip Galvanized Octagonal hot dip Pole with BSEN 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangements,including suitable boards, Bakelite sheet and MCBs as per IS specifications suitable to withstand the wind speed of 47 m/s for .....m Pole in single section and single joint welded as per IS 9595/IS10178AWS having dimensions bottom ..... mm , top.... mm with 3 mm thick, suitable base plate and 4Nos of ..... long J bolts along with template and the Pole shall be hot dip galvanized in single dipping with not less than 65micron as per ASTM-A123 and 153 etc.,(excluding foundation) as per drawing appended. 7 m - Top 70 mm and Bottom 130 mm dia	Each	35	13500	472500.00
2	13/4.6.2	Supplying, and fixing of Hot dip Galvanized M.S.Bracket suitable for out door luminaries and mounted on Octagonal pole using necessary bolts, nuts etc., complete.Single Arm Bracket with 1500 mm Standard 40/50 mm dia	Each	35	2100	73500.00
3	56/13.1.2	Supplying and Fixing of.....mm dia class A GI pipe bracket upto 2 ms long bent at suitable angle and fixing to this bracket street light fitting of all capacities to GI or GI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires.Using 32mm dia G.I.Pipe	Each	17	1045	17765.00
4	46/ 11.8.5 CSR 2023-24	Supply of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate material, delivering superior light output Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, maximum light intensity should be between 60 degrees to 70 degrees. CCT > 5500K, IP66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/miss-wiring protection. Compatible for pole mounting with outer dia of 40mm to50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>1301m/w, nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/Lumileds/Osram makeLED Streetlight 120 W	Each	72	10060	724320.00
5	CSR 2023-24/56/13.6	Fixing charges of post top/ Gate/ Garden fitting /LED on the existing CI/ GI or any other pipe using required size of reducer, wiring using suitable wires.	Each	72	198.00	14256.00

6	5/ 1.4.2 Vol-1 KPWD SR 2023-24	Earth work excavation by manual means for drains, canals, waste weir, draft, approach channels, key trenches, foundation of Buildings & bridges and such simillar works in all kinds of soils, as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. Depth exceeding 1.5m, but not exceeding 3 m	m^3	39.60	259.00	10256.40
7	18/ 2.11 Vol-1 KPWD SR 2023-24	Supplying, fitting and placing TMT FE 550 / 550D Steel Reinforcement including cost of all materials, machinery, labour, cleaning, straightening, cutting, bending, hooking, laping/ tying with binding wire / soft annealed steel wire and other ancilary operations complete as per drawing and technical specification. Building	Kgs	675.51	89.45	60424.37
8	15/ 2.1.3 Vol-1 KPWD SR 2023-24	Providing and laying in position Cement Concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machinery, curing, and all the other appurtenances required to complete the work as per technical specifications. Mix 1:3:6 Using 40 mm nominal size graded crushed coarse aggregates (15/ 2.1.3 Vol-1 KPWD SR 2023-24)	Cums	6.60	5989.00	39527.40
9	15/ 2.2.1 Vol-1 KPWD SR 2023-24	Providing and laying in position Cement Concrete for all Foundation works. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticizers laid in finished layers, well compacted using needle vibrators, including all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all the other appurtenances required to complete the work as per technical specifications. M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates (15/ 2.2.1 Vol-1 KPWD SR 2023-24)	Cums	29.70	6287.00	186723.90
10	52/174/21.05 CSR 2023-24	Laying of cable in Existing Trench/GI pipe/Stone Ware/RCC Hume pipe using Wooden/Aluminum Rollers as directed by the departmental staff.2.5 to 25 Sqmm LT Cable	KM	2.5	20886.00	52215.00
11	13/204/32.08 CSR 2023-24	1.1 kV, XLPE or Heat resistant PVC insulated, PVC exutruted Inner Seath Armoured LTUG Cable as per IS-1554 (Part 1) or IS-7098 Part-1, Armouring strip thickness and resistivity as per IS-3975. 25 Sqmm, 4 Core, (13 GI Strips - 4 x 0.8 mm)	KM	2.5	179844.00	449610.00
12	CSR 2023-24 10/1.17.1	Earth work excavation for pipeline trenches in all kinds of soils by mechanical means as per drawing and technical specifications, including setting out, construction of shoring, strutting, barricading, caution lights, bracing, using sight rails & bonding rods at every 100 mm wherever necessary as directed, removal of stumps and other deleterious matter, dressing of sides and levelling the bottom of trench to the extent required , utilising the available excavated earth locally for the work etc., and all other appurtenances complete in the following strata.All kinds of soils. Depth upto 1.50 m	m^3	750	262	196500.00
13	21/48.01 CSR 2023-24	1.1 kV Class HR (Heat Resistant) PVC Insulated & Sheathed Aluminium Single Core Lead wires as per IS-694: 2010 PVC Wire - 2.5 Sqmm Weight per 100 Mtr Coil: 1.8 Kg	Coil	3	1484.00	4452.00

14	23/51.04 CSR 2023-24	Rod type of earthing using 40 mm Dia, 3 Mtr long MS rod as ground rod, in earth pit of 300 mm width and 3300 mm depth and using 50x6 mm flat welded to ground rod as terminal & connected to equipment ground terminal using PVC Al wire as specified	No	2	2172.00	4344.00
15	20/5.43.1	Supply and Installation /Fixing/ Provision of Pole box with HRC Fuse /MCB provision and suitable connector/ terminal for 3Ph/1Ph connections with Loop-In&Loop-Out terminals for 10mm2/25mm 2 3.5 C Al /Ar/Cu/Ar Cable and branch out 2.5 mm2 2 core I/Cu PVC Insulated cable, enclosed in a Thermoplastic, Polystyreneen closure, which should be shock proof, safe, IP65 (WeatherProof), rustproof, dustproof ,waterproof having Internally Embedded Gasket with provision for cableen try through IP65 Thermoplastic, polyamide glands and/or grommets.200 mm x 200 mm x 98 mm	Each	36.00	2300	82800.00
16	20/5.42.2	Fabricating supplying and mounting MS box made out ....SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 7tanks treatment with powder coated paint and finally finished with approved colour etc., complete.16SWG	cm 2	44000	0.43	18920.00
17	20/5.41.2 5 CSR 23-24	Supplying and fixing angle iron frame work fabricated out of M.S.angle iron.. and M.S. Flat.....with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint.50 x 50 x 6 mm	m	8	395.00	3160.00
18	21/5.47	Supplying and fixing Microprocessor based Electronic timer (without contactor, Din Mounting using necessary bolts, nuts and washers etc.,.) 3-120sec setting	Each	4	2315	9260.00
19	16/5.14.6 CSR 23-24	Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947.95/100 A	Each	2	16606.00	33212.00
20	17/5.15.9 CSR 23-24	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts, necessary phase separators, handle and wiring complete. Protection of Overload and Short circuit in Thermal Magnetic Release. Micro processor release shall have Earth Fault as per IS-13947. (Icu=100% Ics). In 4P MCCB, all Poles should have protection for Short-Circuit/Over Load.For Microprocessor MCCBS Facility for segregating Priority and Non-Priority loads must be available in the MCCB. MCCB shall be provided with double insulation (insulation between front cover and internal power circuits to avoid any accidental contact with live current carrying path with the front cover open). Multi-pole breakers shall be designed to break all the poles simultaneously and they shall have a single mechanism.FOUR POLE100Amps 25kA.	Each	2	8487.00	16974.00
21	17/5.18.1 CSR 23-24	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.6-32Amps SP	Each	9	415.00	3735.00
22	CSR 2023-24/3.9	Supplying and fixing hylum plastic sheet 3mm thick with necessary nitches for fixing switches, regulators etc., and fixing on existing wood or metal box using N. F. screws	cm2	10000	0.35	3500.00
23	30/66.04 CSR 23-24	Optical Fibre Cable (OFC) and its Accessories.HDPE/PLB Pipe 50/42 mm	Km	0.1	85014.00	8501.40

24	44/11.4. 3	Supplying of recess mounting non integrated type LED down light..... W luminaire comprising of pressure decast/ extruded aluminium housing, with spring loaded false ceiling clamps, LED of Power/COB with CCT 6500 degree K, CRI> 70%. efficacy >100 lumen per W, 120degree beam spread, life> 25000 burning hours and Compliance to IS10322/IEC 60598, LM 79 & LM 80. The lamp compartment is enclosed with anti glare opal diffuser which enhances the lighting level. LED's are driven by HF electronic driver integrated in a separate control gear assembly., with PF > 0.95, power loss should< 5% of lamp Wage, short circuit & open circuit protection to be integrated in the circuit, THD less than 20%, Life as per LM 79. The operating input voltage should be between 130 to 275 V. BIS Approved and Tested by NABL/CPRI accredited laboratory with 2 years Warranty against any manufacturing defect working under standard electrical condition. 15-18W	Each	16	1671	26736.00
25	5/2.1.1	Point wiring using Copper wire with switch. Supplying and wiring adopting loop system in existing PVC Conduit /casing capping using 2x1.5Sqmm (Phase&Neutral) & 1x1.0sqmm (Earthwire) FRLS multistrand PVC insulated copper wire (confirming to IS-694: and latest amendments) with a 6Amps flush type SP controls witch shall be fixed on the existing plastic sheet /gang box, the other end of the wires shall be terminated with sufficient loose length in a wood /PVC round block.complete for each outlet.Short point upto 3Mtr from tapping point to out let via switch	Point	16	285	4560.00
26	5/2.1.2	Point wiring using Copper wire with switch. Supplying and wiring adopting loop system in existing PVC Conduit /casing capping using 2x1.5Sqmm (Phase & Neutral) & 1x1.0 sqmm (Earth wire) FRLS multi strand PVC insulated copper wire (confirming to IS-694: and latest amendments) with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet/ gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. complete for each outlet. Medium point above 3Mtr upto 6Mtr from tapping point to out let via switch	Point	8	394	3152.00
27	5/2.1.3	Point wiring using Copper wire with switch. Supplying and wiring adopting loop system in existing PVC Conduit /casing capping using 2x1.5Sqmm (Phase & Neutral) & 1x1.0 sqmm (Earth wire) FRLS multi strand PVC insulated copper wire (confirming to IS-694: and latest amendments) with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet/ gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. complete for each outlet.Long point above 6Mtr upto 10Mtr from tapping point to outlet via switch	Point	4	570	2280.00
28	5/2.3.3	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS 694:200 2.5 mm2	meter	260	42.00	10920.00
29	8/3.5.4	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required nos. of machine screws, bolts nuts etc., complete on the existing metal/PVC box. **6 Module**	Each	2	234	468.00
30	8/3.6.1	Supplying and fixing of modular switch & connected accessories on existing modular switch plate as per IS 3854 and IS 1293. **6A One Way Switch**	Each	10	102	1020.00
31	9/3.6.9	Supplying and fixing of modular switch & connected accessories on existing modular switch plate as per IS 3854 and IS 1293. **32A DP Switch**	Each	4	326.00	1304.00

32	30/6.4.1	Supplying of Ceiling Fan with Capacitor rating As per guideline of BEE 5 star rating and IS:374/19 and also comply with IS: 1709/1984 with latest amendment, Rated voltage 220 V/50 Hz, Rated power upto 35 W +/- 10 %, Rated current As per IS:374/19, Rated power factor 0.9 lagging(min), Rated speed 350 +/- 10% RPM, Rated air delivery 210 +/- 10% Cubic Meter Minimum, Rated service value 6.2 CMM / W, Three Blades of blade leaf 1.05 mm thick Aluminium Alloy sheet, Class B motor insulation, Bearing Two ball bearings, Top 6202, Bottom 6201, as per IS specification, Motor winding. Temp rise Shall not exceed 75 deg C over and ambient of 40 0C by resistance method at 245 V, Insulation resistance Shall not be less than Two Mega Ohms (2M Ohms), Leakage current Should not exceed 210 Micro Amp, Power input, W& current, Air Delivery & Fan Speed as per IS:374/2019 with latest amendment, 2year manufacturer Warranty. (BLDC fans) 48" Sweep 5 Star (1200 mm)	Each	2	2677	5354.00
		Total				2542250.47
		Add 18 % GST on Total				**457605.08**
		Miscellaneous				**144.45**
		Grand TOTAL				**3000000.00**

CERTIFICATE

1. The Place was inspected and work is essential.
2. The Provision made in the estimate is adequate and are necessary.
3. The Work comes in the BBMP limit and is legitimate charges on the Corporation Funds.
4. The rates in the Estimate is based on CSR 2023-24 , KPWD Vol-1 CSR 2023-24 and Approved Rates.

Asst./Junior Engineer (Elec)

Asst. Exe.Engineer (Elec)
Sub-Division No.
Bruhat Bangalore Mahanagara Palike

EXECUTIVE ENGINEER (ELEC)
YELAHANKA DIVISION
BRUHAT BANGALORE MAHANAGARA PALIKE

Administrative Sanction 30,00,000/-
Rupees Thirty Lakhs only
is accorded under P0298, M. and R to Electrical Installation Repairs and Gardens & Play Grounds
Registered as 29/24-25 Subject to conditions if any
No. BBMP/EE(E)/YL/42/AS/29/24-25
Dt 08-11-2024
Executive Engineer

TECHNICALLY SANCTIONED FOR Rs: 30,00,000/-
Rupees: Thirty Lakhs Only
Head of Account: P0298
Registered SE No. 79/2024-25 Subject to condition contained in the enclosed Memo
Administratively Approved By:
No BBMP/EE/E(E)/YL/AS/29/24-25 Dt
Dt
Tech. Asst. AE
SE (Elec.)